

In the claims:

1. (Previously presented) A service interaction method comprising a user interacting with at least one remote service accessible through a home data distribution network, said home data distribution network comprising an aggregation of at least one communications media and at least one communications protocol used to access said at least one remote service from a serving entity, the step of interacting comprising:

enabling remote control of services at a residential network without the necessity of a service provider;

employing only one of a cellular voice network and a PSTN, said user connecting to a serving entity attached to said home data distribution network using a client device attached to a wireless, circuit-switched, voice telephony network,

obtaining and viewing a list of at least one remote service from accessible remote services from said serving entity accessible remotely via said home network from said serving entity using at least one of said communications media and one of said communications protocols;

selecting said at least one remote service from said list;

selecting said at least one communications media and at least one communications protocol that said at least one remote service uses; and

accessing and viewing said at least one remote service in obtaining desired results.

2. (original) A method as recited in claim 1, wherein the client device is portable.

3. (previously presented) A method as recited in claim 1,

wherein the client device is a cellular telephone;

wherein the step of connecting includes dialing-up directly to the serving entity;

wherein the step of viewing is performed employing a viewing device collocated with said client device;

wherein the viewing device depicts information in a form including at least one of: text, graphics, images, light display, voice or any combination of these;

wherein the step of selecting includes employing a menu;

wherein the step of viewing is performed employing a web-browser and the serving entity is a web-server;

wherein the step of connecting includes dialing-up to the serving entity through a data network to which the serving entity is connected;

wherein the data network is the Intranet controlled by an Internet Service Provider;

wherein the data network uses the TCP/IP protocol suite for transporting information;

wherein said wireless, circuit-switched, voice telephony network is a first generation, analog, cellular network;

wherein said wireless, circuit-switched, voice telephony network is a second generation, digital, cellular network;

wherein the step of dialing-up directly to the service entity further includes passing dialing signaling and control data to the serving entity through an intermediary data network;

wherein the step of dialing-up to the serving entity through a data network, further includes dialing-up to the serving entity through a sequence of at least one data network, the last one of which the serving entity is attached to;

wherein at least one service agent is a computer software module executable on a computer; and

wherein the step of viewing views the list on a viewing device in a manner that depends on the user's access privileges to said at least one remote service, and further comprising:

said serving entity employing attributes of said circuit switch network in authenticating said user, wherein said attributes include a telephone number of said client device, and wherein said attributes include a telephone number of said serving entity;

establishing credentials so that said at least one remote service can be manipulated in a secure manner on the serving entity;

the serving entity providing access to at least one service agent used to access and control said at least one remote service;

activating said computer software module prior to invoking a particular remote service;

activating said computer software module on demand after a particular remote service has been invoked;

storing said computer software module at a data repository; and

dynamically retrieving and activating said computer software module from the data repository after invoking a particular remote service.

4. (original) A method as recited in claim 1, wherein the step of connecting includes dialing-up directly to the serving entity.

5. (original) A method as recited in claim 1, wherein the step of viewing is performed employing a viewing device collocated with said client device.

6. (previously presented) A method as recited in claim 1, wherein the viewing device depicts information in a form including at least one of: text, graphics, images, light display, voice or any combination of these.

7. (original) A method as recited in claim 1, wherein the step of selecting includes employing a menu.

8. (original) A method as recited in claim 5, wherein the step of viewing is performed employing a web-browser and the serving entity is a web-server.

9. (original) A method as recited in claim 1, wherein the step of connecting includes dialing-up to the serving entity through a data network to which the serving entity is connected.

10. (original) A method as recited in claim 9, wherein the data network is the Intranet controlled by an Internet Service Provider.

11. (original) A method as recited in claim 9, wherein the data network uses the TCP/IP protocol suite for transporting information.

12. (original) A method as recited in claim 1, further comprising said serving entity employing attributes of said circuit switch network in authenticating said user.

13. (original) A method as recited in claim 12, wherein said attributes include a telephone number of said client device.

14. (original) A method as recited in claim 12, wherein said attributes include a telephone number of said serving entity.

15. (original) A method as recited in claim 1, further comprising establishing credentials so that said at least one remote service can be manipulated in a secure manner on the serving entity.

16. (original) A method as recited in claim 1, wherein the step of viewing views the list on a viewing device in a manner that depends on the user's access privileges to said at least one remote service.

17. (original) A method as recited in claim 1, further comprising the serving entity providing access to at least one service agent used to access and control said at least one remote service.

18. (original) A method as recited in claim 17, wherein at least one of said at least one service agent is a computer software module executable on a computer.

19. (original) A method as recited in claim 18, further comprising activating said software module prior to invoking a particular remote service.

20. (original) A method as recited in claim 18, further comprising activating said software module on demand after a particular remote service has been invoked.

21. (original) A method as recited in claim 18, further comprising storing said software module at a data repository.

22. (original) A method as recited in claim 21, further comprising dynamically retrieving and activating said software module from the data repository after invoking a particular remote service.

23. (original) A method as recited in claim 1, wherein said wireless, circuit-switched, voice telephony network is a first generation, analog, cellular network.

24. (original) A method as recited in claim 1, wherein said wireless, circuit-switched, voice telephony network is a second generation, digital, cellular network.

25. (original) A method as recited in claim 4, wherein the step of dialing-up directly to the service entity further includes passing dialing signaling and control data to the serving entity through an intermediary data network.

26. (original) A method as recited in claim 9, wherein the step of dialing-up to the serving entity through a data network, further includes dialing-up to the serving entity through a sequence of at least one data network, the last one of which the serving entity is attached to.

27. (original) An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for causing a user to interact with at least one remote service, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 1.

28. (original) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for causing a user to interact with at least one remote service, said method steps comprising the steps of claim 1.

29. (Previously presented) An apparatus for a user to interact with at least one remote service, comprising:

user connecting means for said user connecting to a serving entity using a client device attached to a wireless, circuit-switched, voice telephony network, said user connecting means employing only one of a cellular voice network and a PSTN, and enabling remote control of services at a residential network without the necessity of a service provider;

user viewing means for obtaining and viewing a list of accessible remote services from said serving entity;

second connecting means for attaching said apparatus to a communications medium and using a communications protocols, taken from an aggregation of communication media and protocols, through which said at least one remote service can be accessed;

user selecting means for selecting said at least one remote service from said list;

second selecting means for selecting the communications medium and protocol to access said selected at least one service; and

user access means for accessing and viewing said at least one remote service in obtaining desired results.

30. (Currently amended) A physical computer program product comprising a computer ~~usable~~ usable medium having computer readable program code means embodied therein for causing a user to interact with at least one remote service, the computer readable program code means in said physical computer program product causing a computer to effect the functions of claim 28.

31. (Currently amended) An apparatus attached on a home network for a user using a client device attached to a wireless, circuit-switched, voice telephony network, to interact with at least one service on said home network, said apparatus comprising:

a home network;

a telephone modem to directly receive an incoming call from the client device, and also to receive and transmit data over a telephone network, said telephone modem having a client port through which the apparatus attaches to the telephone network and a service port through which the apparatus attaches to the home network, said apparatus being a single apparatus through which a user with the client device can establish communication in one step,

said client device employing only one of a cellular voice network and a PSTN;

a dial-in server ~~service~~ module to implement dial-in logic for the client device;

a browser server module for managing data for remote display; and

a protocol transport module to implement protocols needed to transport data back and forth between a browser application in the client device and said browser server module, wherein interaction with at least one service on said home network by said client device occurs through said apparatus.

32. (original) An apparatus as recited in claim 31, wherein said browser server is used to obtain, organize, and manipulate data received from and data sent to the client device through the protocol transport module.

33. (original) An apparatus as recited in claim 32, wherein said data sent to the client device are displayed and viewed by the browser application in the client device.



34. (previously presented) An apparatus as recited in claim 32, wherein said data sent includes a list of services that are accessible by the client device.

35. (Previously presented) An apparatus as recited in claim 31, wherein said data received by the browser application in the client device include a selection of at least one service the user of the client device controls and an action to be taken for a selected service, and upon receipt of the action the browser server interacts with a particular service agent to implement the control logic for controlling the selected service, wherein a control signal generated by the service agent exits the apparatus through attachment of the home network.

36. (Previously presented) An apparatus as recited in claim 31, wherein said dial-in server module triggers at least one particular module in the apparatus to process any incoming calls and requests from the client device.

37. (previously presented) An apparatus as recited in claim 31, wherein said dial-in server module performs user authentication.

38. (Previously presented) A method as recited in claim 1, wherein the method further comprises selective implementation capability of limiting the method to any combination of the following imitations:

the client device is portable;

the client device is a cellular telephone;

the step of connecting includes dialing-up directly to the serving entity;

the step of viewing is performed employing a viewing device collocated with said client device;

the viewing device depicts information in a form including at least one of: text, graphics, images, light display, voice or any combination of these;

the step of selecting includes employing a menu;

the step of viewing is performed employing a web-browser and the serving entity is a web-server;

the step of connecting includes dialing-up to the serving entity through a data network to which the serving entity is connected;

the data network is the Intranet controlled by an Internet Service Provider;

the data network uses the TCP/IP protocol suite for transporting information;

said wireless, circuit-switched, voice telephony network is a first generation, analog, cellular network;

said wireless, circuit-switched, voice telephony network is a second generation, digital, cellular network;

the step of dialing-up directly to the service entity further includes passing dialing signaling and control data to the serving entity through an intermediary data network;

the step of dialing-up to the serving entity through a data network, further includes dialing-up to the serving entity through a sequence of at least one data network, the last one of which the serving entity is attached to;

at least one service agent is a computer software module executable on a computer; and

the step of viewing views the list on a viewing device in a manner that depends on the user's access privileges to said at least one remote service, and further comprising:

said serving entity employing attributes of said circuit switch network in authenticating said user, wherein said attributes include a telephone number of said client device, and wherein said attributes include a telephone number of said serving entity;

establishing credentials so that said at least one remote service can be manipulated in a secure manner on the serving entity;

the serving entity providing access to at least one service agent used to access and control said at least one remote service;

activating said computer software module prior to invoking a particular remote service;

activating said computer software module on demand after a particular remote service has been invoked;

storing said computer software module at a data repository; and

dynamically retrieving and activating said computer software module from the data repository after invoking a particular remote service; and

the step of connecting includes dialing-up directly to the serving entity;

the step of viewing is performed employing a viewing device collocated with said client device;

the viewing device depicts information in a form including at least one of: text, graphics, images, light display, voice or any combination of these;

the step of selecting includes employing a menu;

the step of viewing is performed employing a web-browser and the serving entity is a web-server;

the step of connecting includes dialing-up to the serving entity through a data network to which the serving entity is connected;

the data network is the Intranet controlled by an Internet Service Provider;

the data network uses the TCP/IP protocol suite for transporting information;

further comprising said serving entity employing attributes of said circuit switch network in authenticating said user,

wherein said attributes include a telephone number of said client device,

wherein said attributes include a telephone number of said serving entity;

further comprising establishing credentials so that said at least one remote service can be manipulated in a secure manner on the serving entity;

the step of viewing views the list on a viewing device in a manner that depends on the user's access privileges to said at least one remote service;

further comprising the serving entity providing access to at least one service agent used to access and control said at least one remote service, wherein at least one of said at least one service agent is a computer software module executable on a computer;

further comprising activating said software module prior to invoking a particular remote service;

further comprising activating said software module on demand after a particular remote service has been invoked;

further comprising storing said software module at a data repository;

further comprising dynamically retrieving and activating said software module from the data repository after invoking a particular remote service;

said wireless, circuit-switched, voice telephony network is a first generation, analog, cellular network;

said wireless, circuit-switched, voice telephony network is a second generation, digital, cellular network;

the step of dialing-up directly to the service entity further includes passing dialing signaling and control data to the serving entity through an intermediary data network; and

the step of dialing-up to the serving entity through a data network, further includes dialing-up to the serving entity through a sequence of at least one data network, the last one of which the serving entity is attached to.

39. (Previously presented) An apparatus as recited in claim 31, wherein the apparatus further comprises selective implementation capability of limiting the apparatus capability to any combination of the following limitations:

said browser server is used to obtain, organize, and manipulate data received from and data sent to the client device through the protocol transport module;

said data sent to the client device are displayed and viewed by the browser application in the client device;

said data sent includes a list of services that are accessible by the client device;

said data received by the browser application in the client device include a selection of at least one service the user of the client device controls and an action to be taken for a selected service, and upon receipt of the action the browser server interacts with a particular service agent to

implement the control logic for controlling the selected service, wherein a control signal generated by the service agent exits the apparatus through attachment of the home network;

said dial-in server module triggers at least one particular module in the apparatus to process any incoming calls and requests from the client device; and

said dial-in server module performs user authentication.